

# Notice of Allowability

Application No.

10/648,100

Examiner

Andre' L. Jackson

Applicant(s)

LEE ET AL.

Art Unit

3677

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment of March 2, 2005.
2. ☒ The allowed claim(s) is/are 1,4,14 and 21, renumbered as claims 1-4.
3. ☒ The drawings filed on 26 August 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance:

The prior art does not disclose or suggest the combination of limitations as set forth in applicant's claims. In particular, the prior art fails to disclose or suggest a hinge apparatus comprising a camshaft assembled with the fixed cam such that the camshaft and the fixed cam are axially movable relative to each other, the camshaft being connected at an end thereof to the fixed hinge part such that an idle rotation of the camshaft relative to the fixed hinge part is prevented. The camshaft includes a boss assembled with the fixed cam such that the boss and the fixed cam are axially movable relative to each other, and a boss shaft integrated with the boss into a single structure, and wherein a key guide groove is formed on an internal surface of the boss, and a key is formed on an external surface of the fixed cam, the key movably engaging with the key guide groove, so that the boss and the fixed cam are axially movable relative to each other.

Lim is considered the closest prior art. Lim discloses a hinge apparatus useable with a portable device comprising a fixed hinge part (51, 52) provided at a main body (50) and a rotary hinge part (71,62,73,74,77,78,79) to be rotated relative to the fixed hinge part, the rotary hinge part including; a power generating unit (73, 74) generating a rotating drive force; a rotary cam (77) and a fixed cam (78) selectively performing power transmission of the rotating drive force of the power generating unit; a camshaft (defined by a recessed portion of a housing (62) retaining the rotary and fixed cams) assembled with the fixed cam such that the camshaft and the fixed cam are axially movable relative to each other, the camshaft being connected at an end thereof to the fixed hinge part such that an idle rotation of the camshaft relative to the fixed hinge

part is prevented; and an elastic biasing member (79) provided in the camshaft to elastically bias the fixed cam and the camshaft in opposite directions. However, Lim fails to disclose or suggest, at the least, a key guide groove formed on an internal surface of the boss, and a key is formed on an external surface of the fixed cam, the key movably engaging with the key guide groove, so that the boss and the fixed cam are axially movable relative to each other.

None of the other prior art references whether taken alone or used in combination, cure the deficiencies of Lim. Therefore, the Examiner believes applicant's claims as presently presented are patentably distinct from the prior art made of record.

### CONCLUSION

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' L. Jackson whose telephone number is (571) 272-7067. The examiner can normally be reached on Mon. - Fri. (9:30 am - 6 pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3677

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

André L. Jackson  
Patent Examiner  
AU 3677

ALJ

  
ROBERT J. SANDY  
PRIMARY EXAMINER